

REMARKS

I. Status of the Application

Claims 1 – 21 are presently pending in the application. Claims 5, 6, and 9 – 21 have been withdrawn from consideration. Claims 1 – 4 and 7 stand rejected under § 102(b) as being anticipated by Huang et al. Anal. Chem. 1997, 69, 4577-4580. Claims 1 – 4, 7, and 8 stand rejected under § 102(e) as being anticipated by Klaerner et al. US 2002/0001845 A1.

At the outset, the Applicants thank the Examiner for granting the change of inventorship in the application by the addition of Ying Chang and Curtis W. Frank. The Applicants have submitted a Supplemental IDS with English translations of the Japanese patents listed on the Supplemental IDS.

II. Claims 1 – 4 and 7 Are Not Anticipated by Huang et al.

Claims 1 – 4 and 7 stand rejected under § 102(b) as being anticipated by Huang et al. The Examiner states that Huang et al. discloses a method of surfaced-initiated radical polymerization on silica using benzyl chloride free radical initiators that are covalently attached to a silica surface. In addition, the Examiner believes that Huang et al. discloses polymer thin film products containing amino groups. However, the Examiner recognizes that Huang et al. does not teach the preamble use of the polymeric brush substrate for “use in solid-phase synthesis of macromolecules.” Applicants respectfully traverse this anticipation rejection in light of the claim amendments.

In response, the applicants have amended the claims to recite a substrate for solid phase synthesis of macromolecules. As the Examiner indicates, Huang et al. fails to teach a polymeric brush substrate for solid-phase synthesis of macromolecules. Therefore, Huang et al. fails to teach all of Applicants’ claim limitations as the claims are amended. Accordingly, Applicants respectfully request that the Examiner withdraw the obviousness rejection.

III. Claims 1 – 4, 7, and 8 Are Not Anticipated by Klaerner et al.

At page 7, paragraph 13 of the office action, the Examiner has rejected claims 1 – 4, 7, and 8 as being unpatentable over Klaerner et al. (U.S. Patent Application Publication No. US2002/0001845). The Examiner states that Klaerner et al. disclose “a polymer brush for binding a molecule where the polymer brush is attached to a surface and is made by reaction of a surface bound initiator.” [Internal quotations omitted] The Examiner also states that Klaerner et al. disclose “radical initiators that are covalently attached to a surface such as glass or silica” and that “vinyl-containing monomers are used in the method of Klaerner et al.” Additionally, the Examiner states that Klaerner et al. disclose “living free radical polymerization,” “a wide variety of different functionalities on their polymer brushes,” and “using vinyl acetate as a monomer for polymer brush formation.” Applicants respectfully traverse this rejection.

Klaerner et al. is not a 102(e) reference against this application as evidenced by the 1.131 declaration filed herewith. The inventors, in the 1.131 declaration, state that they had reduced to practice the claimed invention before July 2, 1999, which is the earliest possible priority date of the Klaerner et al. patent application. The statements in the declaration are supported by reproductions of the laboratory notebook of Ying Chih Chang, which demonstrate the reduction to practice of each claim of the instant application. Accordingly, Applicants respectfully request the Examiner to withdraw the anticipation rejection.

Respectfully submitted,

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